

**PATENT**

**03SW169/ALBRP314US**

**CERTIFICATE OF TRANSMISSION**

I hereby certify that this correspondence (along with any paper referred to as being attached or enclosed) is being submitted *via* the USPTO EFS Filing System on the date shown below to Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Date: May 7, 2007

/Stacey Bussey/  
Stacey Bussey

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of:

Appellant(s): Clifton H. Bromley, et al.

Examiner: Adrian Kennedy

Serial No: 10/670,582

Art Unit: 2121

Filing Date: September 25, 2003

Title: GRAPHICAL USER INTERFACE

**Mail Stop Appeal Brief – Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450**

---

**APPEAL BRIEF**

---

Dear Sir:

Appellants' representative submits this brief in connection with an appeal of the above-identified patent application. If any additional fees are due, the Commissioner is authorized to charge such fees to Deposit Account No. 50-1063 [ALBRP314US].

**I. Real Party in Interest (37 C.F.R. §41.37(c)(1)(i))**

The real party in interest in the present appeal is Rockwell Automation Technologies, Inc., the assignee of the present application.

**II. Related Appeals and Interferences (37 C.F.R. §41.37(c)(1)(ii))**

Appellants, appellants' legal representative, and/or the assignee of the present application are not aware of any appeals or interferences which will directly affect, or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**III. Status of Claims (37 C.F.R. §41.37(c)(1)(iii))**

Claims 1-40 stand rejected by the Examiner. The rejection of claims 1-40 is being appealed.

**IV. Status of Amendments (37 C.F.R. §41.37(c)(1)(iv))**

No amendments had been submitted after the Final Office Action.

**V. Summary of Claimed Subject Matter (37 C.F.R. §41.37(c)(1)(v))****A. Independent Claim 1**

Independent claim 1 and its corresponding dependent claims relate to a computer implemented system that renders data in an industrial automation environment. A human machine interface (HMI) presents the data in a plurality of device platforms. (*See e.g.* Fig. 1, elements 130, 140, 150; Application at p. 8, lines 11-22). A device analyzer determines properties associated with a plurality of devices having disparate device platforms, intended for delivery of data. (*See e.g.* Fig. 1, element 120; Application at p. 8, lines 23 *et seq.*). An HMI generator generates code and/or data for the HMI in accordance with determined properties of the devices, and delivers the code and/or data to the respective devices based on attributes of the respective device platforms. (*See e.g.* Fig. 1, element 110; Application at p. 8, lines 12-14).

**B. Independent Claim 18**

Independent claim 18 and its corresponding dependent claims relate to a computer implemented system that renders data in an industrial automation environment. A human machine interface (HMI) presents the data to an operator. (*See e.g.* Fig. 6, element 610; Application at p. 19, lines 4-5). A component determines if the format and/or sub-format of the data is known to the system. (*See e.g.* Fig. 6, element 630; Application at p. 19, lines 7-8). An artificial intelligence component determines the format of unknown data received by the HMI. (*See e.g.* Fig. 6, element 640; Application at p. 20, lines 1-2). A processing component processes and renders the data in the HMI in a suitable format. (*See e.g.* Fig. 6, elements 670-690; Application at p. 20, lines 8-9).

**C. Independent Claim 24**

Independent claim 24 and its corresponding dependent claims relate to a method to display data based at least in part on a zoom level selected by a user. Data is displayed associated with process points in a plurality of disparate views, the data can be hidden or exposed to the user in respective disparate views. (*See e.g.* Fig. 7; Application at p. 20, lines 22-24). Respective views are displayed associated with a corresponding zoom level. (*See e.g.* Fig. 7, elements 740-760; Application at p. 21, lines 3-6).

**D. Independent Claim 29**

Independent claim 29 and its corresponding dependent claims relate to a computer implemented system that facilitates recognizing and/or creating a software object representing a physical device. A software object generator determines properties associated with a plurality of devices intended for creation of the software object. (*See e.g.* Fig. 8, element 840; Application at p. 21, lines 14-16). An HMI generator formats data respectively in accordance with the determined properties of the devices. (*See e.g.* Fig. 8, element 850; Application at p. 21, lines 24-25). An HMI controls the physical device utilizing the software object representing the device. (*See e.g.* Application at p. 22, lines 10-13).

**E. Independent Claim 33**

Independent claim 33 and its corresponding dependent claim relate to a computer implemented method that facilitates rendering of data in an industrial automation environment. Formatting requirements are determined associated with a plurality of devices having disparate platforms, intended for delivery of data. (*See e.g.* Application at p. 10, lines 28 *et seq.*). The data are formatted respectively in accordance with the determined formatting requirements of the devices and the formatted data are delivered to the respective devices. (*See e.g.* Application at p. 10, lines 2-4). The formatted data are displayed based on attributes of the respective device platform. (*See e.g.* Application at p. 10, lines 4-5).

**F. Independent Claim 35**

Independent claim 35 relates to a computer implemented method that facilitates rendering of data in an industrial automation environment. Data are received from a physical device to an HMI. (*See e.g.* Application at p. 19, lines 4-5). The data format is compared to data formats known to the HMI. (*See e.g.* Application at p. 19, lines 7-8). The format is determined of unknown data received by the HMI. (*See e.g.* Application at p. 20, lines 1-2). The data are processed and rendered in the HMI in a suitable format. (*See e.g.* Application at p. 20, lines 8-9).

**G. Independent Claim 36**

Independent claim 36 relates to a computer implemented method that facilitates recognizing and/or creating at least one software object representing at least one physical device. The I/O and communications protocol are determined of the at least one physical device. (*See e.g.* Fig. 8, element 840; Application at p. 22, lines 2-4). The data are formatted respectively in accordance with the determined properties of the devices and a software object is created representing the device with I/O to interface with the physical device. (*See e.g.* Fig. 8, elements 811, 821, 831; Application at p. 21, lines 20-23). The physical device is controlled utilizing the software object representing the device. (*See e.g.* Application at p. 23, lines 10-13).

**H. Independent Claim 37**

Independent claim 37 relates to a computer implemented system that facilitates rendering of data in an industrial automation environment. Means are provided to determine properties associated with a plurality of devices intended for delivery of data. (*See e.g.* Fig. 2, element 220; Application at p. 10, lines 22 *et seq.*). Means are also provided to format the data respectively in accordance with the determined properties of the devices. (*See e.g.* Fig. 2, element 220; Application at p. 10, lines 27-28). Means are further provided to deliver the formatted data to the respective devices. (*See e.g.* Fig. 2, element 220; Application at p. 11, lines 2-5).

**I. Independent Claim 38**

Independent claim 38 relates to a computer implemented system that facilitates rendering of data in an industrial automation environment. Means are provided to determine if a format of the data is known to the system. (*See e.g.* Fig. 6, element 620; Application at p. 19, lines 5-6). Means are additionally provided to determine the format of unknown data received by the HMI. (*See e.g.* Fig. 6, element 640; Application at p. 20, lines 1-2). Means are also provided to process and render the data in the HMI in a suitable format. (*See e.g.* Fig. 6, element 640; Application at p. 20, lines 10-14).

**J. Independent Claim 39**

Independent claim 39 relates to a computer implemented system that facilitates recognizing and/or creating at least one software object representing at least one physical device. Means are provided to generate at least one software object by determining properties associated with a plurality of at least one of the devices intended for creation of the at least one of the software objects. (*See e.g.* Fig. 8, element 840; Application at p. 21, lines 14-16). Means are further provided to format the data respectively in accordance with the determined properties of the devices. (*See e.g.* Fig. 8, element 850; Application at p. 21, lines 24-25). Means are additionally provided to create at least one or more software objects representing the at least one device with I/O to interface with the at least one physical device. (*See e.g.* Fig. 8, element 811, 821, 831; Application at p.

22, lines 20-26). Means are still further provided to control the physical device utilizing the software object representing the device. (*See e.g.* Application at p. 22, lines 10-13).

**K. Independent Claim 40**

Independent claim 40 relates to a computer implemented system that displays data based at least in part on a zoom level selected by a user. Means are provided to display data associated with process points in a plurality of disparate views, the data can be hidden or exposed to the user in respective disparate views. (*See e.g.* Fig. 7; Application at p. 20, lines 22-24). Means are further provided to display respective views associated with a corresponding zoom level. (*See e.g.* Fig. 7, elements 740-760; Application at p. 21, lines 3-6).

**VI. Grounds of Rejection to be Reviewed on Appeal (37 C.F.R. §41.37(c)(1)(vi))**

**A.** Whether claims 37-40 are unpatentable under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention.

**B.** Whether claims 1-28, 33-35, 37-38, and 40 are anticipated under 35 U.S.C. §102(e) by Wolff *et al.* (US App. No. 2003/0120714).

**C.** Whether claims 29-32, 36, and 39 are anticipated under 35 U.S.C. §102(b) by Shteyn (US 6,199,136).

**VII. Argument (37 C.F.R. §41.37(c)(1)(vii))**

**A. Rejection of Claims 37-40 Under 35 U.S.C. §112, second paragraph**

Claims 37-40 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention. The Final Action maintains that this rejection

is proper because these claims recite a method in the preamble, but the bodies of the claims recite no method steps. This ground of rejection is incorrect because claims 37-40 had previously been amended to recite a *computer implemented system* rather than a method. Therefore, this baseless rejection should be reversed.

**B. Rejection of Claims 1-28, 33-35, 37-38, and 40 Under 35 U.S.C.**

**§102(e)**

Claims 1-28, 33-35, 37-38, and 40 stand rejected under 35 U.S.C. §102(e) as being anticipated by Wolff *et al.* (US App. No. 2003/0120714). Reversal of this rejection is requested for at least the following reasons. Wolff *et al.* does not disclose each and every limitation set forth in the subject claims.

A single prior art reference anticipates a patent claim only if it *expressly or inherently describes each and every limitation set forth in the patent claim*. *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). *The identical invention must be shown in as complete detail as is contained in the ... claim.* *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

Appellant's claimed subject matter as recited in amended claim 1 (and similarly independent claims 33 and 37) relates to *a system that renders data in an industrial automation environment. An HMI presents the data in a plurality of device platforms. A device analyzer determines properties associated with a plurality of devices having disparate device platforms, intended for delivery of data. An HMI generator generates code and/or data for the HMI in accordance with determined properties of the devices, and delivers the code and/or data to the respective devices based on attributes of the respective device platforms.* Wolff *et al.* does not disclose or suggest these novel features.

Wolff *et al.* relates to an HMI for use with a machine vision system (MVS) in which a communication interface exchanges information with a portable device that can be removed from the MVS during runtime, where the portable device can be a web-

browser equipped computer or a PDA. In connection with claim 1, the Final Action again cites paragraphs [0017], [0050] and [0047] against the subject *device analyzer*, and paragraphs [0044] and [0050] against the subject *HMI generator*. However, paragraph [0017] simply discloses configuring the aforementioned computer or PDA to include “a generic web browser application or another specialized interface application.” Paragraph [0050] discloses “returning certain MVS data – particularly image data – at a data rate and reduced format that conform with the reduced capabilities of the PDA and communication link.” Paragraph [0047] simply discloses “a handshaking process for avoiding reloading of a specialized application where it already exists.” There is nothing in these paragraphs or elsewhere in the cited document to disclose or suggest a *device analyzer that determines properties associated with a plurality of devices having disparate device platforms, intended for delivery of data*. Paragraph [0044] only discloses a machine vision application for the PDA that “allows creation of a specific set of GUI display screens and buttons.” There is nothing in paragraphs [0044] or [0050] or elsewhere in this cited document to disclose or suggest an *HMI generator that generates code and/or data for the HMI in accordance with determined properties of the devices, and delivers the code and/or data to the respective devices based on attributes of the respective device platforms*, as recited in claim 1 (and similarly independent claims 33 and 37.) In maintaining the grounds of rejection against the aforementioned claims, the Final Action contends that Appellant is merely trying to draw a distinction between an HMI and the use of an HMI, which “is a distinction without a difference since an HMI without a use is merely a collection of algorithm (*sic*).” The fact is, no such distinctions had been argued in the previous Reply. Rather, the deficiencies of the cited document were presented, as are reiterated *supra*. The Final Action contends that Wolff *et al.* shows presenting data in a plurality of devices and platforms, quoting paragraph [0007] from the “Summary” of Wolff *et al.*, which states that the “portable device can be a web-browser equipped computer (handheld, laptop or fixed PC), a Personal Digital Assistant (PDA), or another form of remote computing device,” and also “a generic web browser application or another specialized interface application.” However, it must be appreciated that these additional scanty disclosures are merely mentioned in the context that any of these different devices and platforms can be dedicated for use in a single



platform. There is no disclosure or suggestion of any sort of multiple device flexibility, in accordance with the claimed *device analyzer* that *determines properties associated with a plurality of devices having disparate device platforms*, nor any further flexibility such as the claimed *HMI generator* that *generates code and/or data... based on attributes of the respective device platforms*. Therefore, it is again emphasized that Wolff *et al.* fails to anticipate these claims.

Amended claim 18 (and similarly independent claims 35 and 38) relates to a system that renders data in an industrial automation environment including, *inter alia*, a component that determines if the format and/or sub-format of the data is known to the system, and an artificial intelligence component that determines the format of unknown data received by the HMI. The Final Action again cites [0052] of Wolff *et al.* against these claimed aspects. However, this paragraph discloses application software that includes “any of a number of commercially available image compression routines” so as to reduce the MVS data stream to enable display on the PDA. The Final Action then states that “this implies that the software determines if the format and/or sub-format of the data is known to the PDA.” This explanation is made with no further elaboration against the claimed *artificial intelligence component*. In any event, Wolff *et al.* is simply concerned with compressing image data, and there is nothing in this passage that discloses or suggests a component that determines if the format and/or sub-format of the data is known to the system. Further, it is respectfully submitted that an assertion that a reference “implies” a claimed feature is not sufficient to meet the requirement that a reference *expressly or inherently describes each and every limitation set forth in the patent claim* in order to show anticipation in accordance with 35 U.S.C. §102(e). Additionally, there is no disclosure or suggestion within the four corners of Wolff *et al.* of an artificial intelligence component that determines the format of unknown data received by the HMI, as recited in amended claim 18 (and similarly independent claims 35 and 38). The Final Action takes the position that such an artificial intelligence component is disclosed in paragraph [0052], relying on the statement that “a variety of techniques can be employed for converting image data from an MVS format to a format acceptable in a PDA.” However, it is readily apparent that that this position is untenable

since no *artificial intelligence component* is disclosed in this passage, and therefore anticipation cannot be demonstrated.

Amended claim 24 (and similarly independent claim 40) relates to *a method to display data based at least in part on a zoom level selected by a user including displaying data associated with process points in a plurality of disparate views, the data can be hidden or exposed to the user in respective disparate views, and displaying respective views associated with a corresponding zoom level*. The Final Action cites paragraphs [0054] and [0079] against these claimed aspects. However, these paragraphs only disclose details in connection with a zoom function. There is nothing in these paragraphs nor the remainder of this cited document that discloses or suggests *displaying data associated with process points in a plurality of disparate views, the data can be hidden or exposed to the user in respective disparate views*, as recited in amended claim 24 (and similarly independent claim 40). In response thereto, the Final Action takes the position that the “display images” and the “portions of the field of view” from paragraph [0052] of Wolff *et al.* are equivalent. The disclosure in question is not in this paragraph and it appears the Final Action is referring to paragraph [0054] which states, “a selectable, non-integer digital re-sampling method is used to provide display images of any desired magnification and in any desired portion of the field of view (*e.g.* selectable pan and zoom).” It is readily apparent that this position is also in error, because the disclosed re-sampling method fails to mention *inter alia displaying data associated with process points* as presently claimed.

In view of at least the foregoing arguments, it is readily apparent that the cited document does not disclose or suggest every aspect of the claimed subject matter. Accordingly, the rejection of independent claims 1, 18, 24, 33, 35, 37, 38, and 40 (and claims that depend there from) should be reversed.

**C. Rejection of Claims 29-32, 36, and 39 Under 35 U.S.C. §103(a)**

Claims 29-32, 36, and 39 stand rejected under 35 U.S.C. §102(b) as being anticipated by Shteyn (US 6,199,136). Reversal of this rejection is requested for at least the following reasons. Shteyn does not disclose each and every limitation set forth in the subject claims.

Appellant's claimed subject matter as recited in amended claim 29 (and similarly independent claims 36 and 39) relates to a *system that facilitates recognizing and/or creating a software object representing a physical device. A software object generator is included that determines properties associated with a plurality of devices intended for creation of the software object. An HMI generator formats data respectively in accordance with the determined properties of the devices. An HMI controls the physical device utilizing the software object representing the device.* Shteyn does not disclose or suggest these novel features.

Shteyn relates to a home automation system, *e.g.* for controlling audio/video equipment in a home entertainment system. The Office Action cites several passages against the claimed aspects, including: col. 1, lines 57-58; col. 4, lines 5-25; col. 6, lines 14-17; and col. 3, lines 32-36. These passages include various disclosures such as controlling devices through "abstract representations," having message sets for each class of device, *e.g.* TV receivers, VCRs, *etc.*, modeling home devices as OLE Automation objects, and a data-driven interaction controller that renders a GUI interface on an appliances display, where the displays can vary from graphical to text-only. There is nothing in these passages or elsewhere in this cited document that would disclose or suggest a *software object generator that determines properties associated with a plurality of devices intended for creation of the software object.* Neither is there any disclosure or suggestion of an *HMI generator formats data respectively in accordance with the determined properties of the devices.* And clearly, nothing in this cited document discloses or suggests an *HMI that controls the physical device utilizing the software object representing the device.* The Final Action takes the position that "the process of a physical device executing HAVi bytecode that is generated, based on abstract representation of CE devices is equivalent to the process of the HMI controlling a physical device utilizing the software object representing the device." No elaboration is provided to support this bald assertion. By merely equating unlike structures, the Final Action has made a *de facto* admission that each and every aspect of the claimed invention is not disclosed in the cited reference.

In view of at least the foregoing arguments, it is readily apparent that the cited document does not disclose or suggest every aspect of the claimed subject matter, and

therefore fails to anticipate the claimed invention. Accordingly, the rejection of independent claims 29, 36, and 39 (and claims that depend there from) should be reversed.

**D. Conclusion**

For at least the above reasons, the claims currently under consideration are believed to be patentable over the cited references. Accordingly, it is respectfully requested that the rejections of claims 1-40 be reversed.

A credit card payment form is filed concurrently herewith in connection with all fees due regarding this document. In the event any additional fees may be due and/or are not covered by the credit card, the Commissioner is authorized to charge such fees to Deposit Account No. 50-1063 [ALBRP314US].

Respectfully submitted,  
AMIN, TUROC & CALVIN, LLP

/Himanshu S. Amin/  
Himanshu S. Amin  
Reg. No. 40,894

AMIN, TUROC & CALVIN, LLP  
24<sup>th</sup> Floor, National City Center  
1900 East 9<sup>th</sup> Street  
Telephone: (216) 696-8730  
Facsimile: (216) 696-8731

**VIII. Claims Appendix (37 C.F.R. §41.37(c)(1)(viii))**

1. A computer implemented system that renders data in an industrial automation environment, comprising:
  - a human machine interface (HMI) that presents the data in a plurality of device platforms;
  - a device analyzer that determines properties associated with a plurality of devices having disparate device platforms, intended for delivery of data; and
  - an HMI generator that generates code and/or data for the HMI in accordance with determined properties of the devices, and delivers the code and/or data to the respective devices based on attributes of the respective device platforms.
2. The system of claim 1, the device analyzer comprising a memory and a processor.
3. The system of claim 2, the processor utilizes artificial intelligence techniques to properly render the data.
4. The system of claim 1, the HMI generator automatically modifies code and/or data associated with the HMI for display on a new device for which the HMI was not originally configured, wherein the HMI is modified according to the determined properties of the new device.
5. The device analyzer of claim 1, wherein artificial intelligence techniques are employed in connection with manipulating a mapping.
6. The system of claim 1, employed in a processing environment comprising at least one of:
  - a personal computer;
  - a desktop computer;
  - a laptop computer;
  - a personal digital assistant;

- a hand-held computer;
  - a cell phone; and
  - a tablet computer.
7. The system of claim 1, wherein one or more of the device(s) coupled to the HMI generator is at least one of:
- a display;
  - a data store; and
  - a server.
8. The system of claim 1, the HMI generator comprising:
- a processing element that facilitates creation of one or more multi-dimensional software objects that render data in multiple dimensions and/or formats at substantially the same time; and
  - a component that obtains a common data input for the one or more multi-dimensional software objects.
9. The system of claim 8, wherein specific data is assigned to a software object.
10. The system of claim 9, the data varies at least one of
- size;
  - color;
  - translational location;
  - rotation of a software object:
  - text;
  - audio;
  - video;
  - visibility;
  - enable/disable state;
  - object state;
  - object type;

object text;  
trending zoom level;  
audio volume;  
specification of audio clips;  
specification of video clips; and  
starting and/or stopping animation.

11. The system of claim 8, wherein changes to the common data input affect the one or more multi-dimensional software objects.

12. The system of claim 1, the HMI generator further comprising:  
a component that associates one or more software objects with one or more physical devices; and  
a component that generates software objects wherein the one or more software objects are associated with data corresponding to the one or more physical devices,  
the physical devices affecting changes to the software objects and the software objects affecting changes to the physical devices.

13. The system of claim 12, the one or more software objects imported from an outside source.

14. The system of claim 12, further comprising an interface to facilitate selection of data to associate with physical devices.

15. The system of claim 12, further comprising an interface to facilitate selection of specific attributes of software objects corresponding to data associated with physical devices.

16. The system of claim 1, further comprising:



a component that renders data based on one or more of a user access data level, a data type and a data state wherein the component is employed in an HMI residing in a processing environment.

17. The system of claim 16 further comprising a user-based association between displayed data and at least one of:

- a user access level;
- a data type; and
- a data state.

18. A computer implemented system that renders data in an industrial automation environment comprising:

- a human machine interface (HMI) that presents the data to an operator;
- a component that determines if the format and/or sub-format of the data is known to the system;
- an artificial intelligence component that determines the format of unknown data received by the HMI; and
- a processing component that process and renders the data in the HMI in a suitable format.

19. The system of claim 18, the artificial intelligence locates and renders a partial data set.

20. The system of claim 18 further comprising a memory which stores previously unknown data types to compare with future data.

21. The system of claim 18, the HMI renders the data into at least one of  
text;  
audio;  
video;  
static image(s); and

- interactive image(s).
22. The system of claim 18, providing an error message when data cannot be rendered.
23. The system of claim 18, wherein data is rendered in a format and/or sub-format suitable to the display capabilities of the device on which the data is to be presented.
24. A method to display data based at least in part on a zoom level selected by a user comprising:
- displaying data associated with process points in a plurality of disparate views, the data can be hidden or exposed to the user in respective disparate views; and
  - displaying respective views associated with a corresponding zoom level.
25. The method of claim 24, further comprising:
- presenting data associated with a zoom level chosen by the user; and
  - suppressing data associated with a zoom level chosen by the user.
26. The method of claim 24, further comprising assigning the data and the zoom levels.
27. The method of claim 24, further comprising allowing the zoom level and the data to be associated in a non-linear relationship.
28. The method of claim 24, further comprising an artificial intelligence component capable of inferring a default zoom level based on a user preference.
29. A computer implemented system that facilitates recognizing and/or creating a software object representing a physical device, comprising:
- a software object generator that determines properties associated with a plurality of devices intended for creation of the software object;

an HMI generator that formats data respectively in accordance with the determined properties of the devices; and

an HMI that controls the physical device utilizing the software object representing the device.

30. The system of claim 29 further comprising an artificial intelligence component utilized to recognize a new device added to the system.

31. The system of claim 29 further comprising recognizing substantially all the components coupled to the system.

32. The system of claim 29 further comprising a mapping element to provide connectivity to the physical devices.

33. A computer implemented method that facilitates rendering of data in an industrial automation environment, comprising:

determining formatting requirements associated with a plurality of devices having disparate platforms, intended for delivery of data;

formatting the data respectively in accordance with the determined formatting requirements of the devices;

delivering the formatted data to the respective devices;

displaying the formatted data based on attributes of the respective device platform.

34. The method of claim 33, further comprising reformatting data associated with an existing HMI for delivery to a newly detected device based on the determined formatting requirements of the newly detected device.

35. A computer implemented method that facilitates rendering of data in an industrial automation environment comprising:

receiving data from a physical device to an HMI; and

- comparing the data format to data formats known to the HMI; and
  - determining the format of unknown data received by the HMI; and
  - processing; and
  - rendering the data in the HMI in a suitable format.
36. A computer implemented method that facilitates recognizing and/or creating at least one software object representing at least one physical device, comprising:
- determining the I/O and communications protocol of the at least one physical device;
  - formatting the data respectively in accordance with the determined properties of the devices;
  - creating a software object representing the device with I/O to interface with the physical device; and
  - controlling the physical device utilizing the software object representing the device.
37. A computer implemented system that facilitates rendering of data in an industrial automation environment, comprising:
- means to determine properties associated with a plurality of devices intended for delivery of data; and
  - means to format the data respectively in accordance with the determined properties of the devices; and
  - means to deliver the formatted data to the respective devices.
38. A computer implemented system that facilitates rendering of data in an industrial automation environment comprising:
- means to determine if a format of the data is known to the system; and
  - means to determine the format of unknown data received by the HMI; and
  - means to process and render the data in the HMI in a suitable format.

39. A computer implemented system that facilitates recognizing and/or creating at least one software object representing at least one physical device, comprising:

means to generate at least one software object by determining properties associated with a plurality of at least one of the devices intended for creation of the at least one of the software objects;

means to format the data respectively in accordance with the determined properties of the devices;

means to create at least one or more software objects representing the at least one device with I/O to interface with the at least one physical device; and

means to control the physical device utilizing the software object representing the device.

40. A computer implemented system that displays data based at least in part on a zoom level selected by a user comprising:

means to display data associated with process points in a plurality of disparate views, the data can be hidden or exposed to the user in respective disparate views; and

means to display respective views associated with a corresponding zoom level.

**IX. Evidence Appendix (37 C.F.R. §41.37(c)(1)(ix))**

None.

**X. Related Proceedings Appendix (37 C.F.R. §41.37(c)(1)(x))**

None.